

INDEX TO CORRESPONDENTS.

—:0:—

A.—W. J. Andrews 22, 49, 88, 163, 187, 224, 225, 260, 297, 310, 333, 369, 407. H. Alley 51, 64, 87, 119, 201, 238, 266, 271, 304, 305, 308, 349, 415, 421. J. Anderson 51. R. M. Argo 65, 199, 272, 307, 343. N. P. Allen 69, 88, 195, 209, 410. J. L. Anderson 126, 276, 336. H. J. Alvin 160. A. C. Attwood 235. R. Arnold 261. J. Atkins 276. L. C. Axtell 335. R. M. Anderson 335. W. H. Andrews 341. A. Beginner 418. M. Adams 419.

B.—H. Bird 15. R. S. Becktell 30. S. S. Butler 30, 51. H. A. Burch 31, 56, 66, 120, 185, 215, 340. J. M. Bennett 48. M. M. Baldridge 49, 121, 130. Dr. J. P. H. Brown 50, 136. J. W. Bittenbender 51. W. S. Boyd 54. F. Benton 57, 133, 140, 177, 225, 277, 298, 405. T. F. Birmingham 62, 85, 123, 206, 220, 230. W. S. Barclay 91. J. Billings 98. W. Bentz 102. Barker & Dicer 122. R. Bækken 135, 301. O. Brønnefeld 155. O. M. Brown 156. Jos Brown 158, 161. J. Burfoot 155. C. S. B. 161. Mrs. A. Bucker 161. L. C. Bornmann 162. W. B. Beal 173. A. Benedict 190, 229. Mrs. L. B. Baker 164. Mrs. M. A. Bills 197. P. Bossert 204. D. Bartzis 207. J. J. Brooks 210, 250. J. Best 220. W. G. Bailey 240. L. E. Bush 278. J. D. Biedell 297. O. F. Biedsoe 334. H. L. Brush 351. N. K. Botsinger 382. Dr. Botts 411. E. R. Billings 44. W. B. Burgett 419. A. A. Baldwin 420. E. B. Barker 422. H. B. 422.

C.—W. F. Clark 11, 13, 46. W. Christ 16. A. Chapman 16. A. J. Cook 18, 67, 92, 96, 101, 164, 180, 221, 278, 300, 315, 371. N. Cameron 20, 165, 200. J. V. Caldwell 28, 203. W. H. Conklin 47. R. C. Cameron 47. D. Clifton 51. J. T. Connley 52, 126. C. R. Clough 53, 242. J. M. Camp 53. J. S. Coop 57, 103, 158, 310. P. P. Collier 67, 68, 101, 302, 347. O. Clete 97, 227, 304. M. M. Callen 102. J. H. Christie 121. F. P. Clark 123. R. L. Curry 123. F. W. Chapman 155, 201. S. Cornell 155. Crowfoot Bros. 159. E. Culver 162. W. Cam 162, 211, 314. A. B. Cheney 165, 173, 329. H. Christ 202. O. E. Clark 207. F. Claussen 240. John Crowfoot 276. J. Z. Carr 278. W. E. Connell 301. A. U. Crosby 315. G. W. Church 333. R. A. Calvin 350. O. Courtney 350. E. Cori 406. I. M. Camp 420.

D.—G. M. Doolittle 14, 347, 364, 370, 417, 422. J. L. Davis 14, 63, 64. F. R. Davis 15. M. D. DuBois 16. Dr. Dzierzon 23, 223. C. Dadant 25, 27, 84, 96, 106, 157, 164, 203, 231, 233, 234, 265, 306, 350, 409. P. Dunken 51, 207. J. Dikevey 52. Mrs. J. W. Dick 53. L. J. Diehl 120, 131. J. Davis 134. R. Dart 159. J. W. Dodson 159. S. C. Dodge 176, 335, 376, 408. D. M. D. 242. A. J. Davidson 268. W. Dyer 276, 277. Mrs. J. S. Dunham 301. J. A. Dirlwanger 301. W. J. Davis 302. M. Deunler 314. Mrs. M. Dunbar 334. N. B. DeVot 336. J. B. Dines 422.

E.—J. Edmonds 51, 162, 204, 240. J. Edmonds 101. W. P. Evertt 102, 135, 161, 211. P. H. Elwood 160. H. D. Edwards 205, 351. E. S. Edwards 240.

F.—C. Follett 48. R. Forsyth 51. J. B. Ficklen 52. J. Flory 52, 156, 275, 301. B. Franklin 102, 209. C. J. Fox 137, 264. S. S. Fetherolf 335. J. Fox 416.

G.—C. Grimm 19, 418. W. H. Garihan 51. F. M. Gingras 53, 422. J. W. Guthrie 53. C. F. Greening 63, 240, 273, 300. J. G. 83. J. W. Greene 100, 240, 257. G. L. Green 100. A. P. Green 123. LeRoy Gates 125. R. P. G. 158. D. Grabine 162. J. M. Good 189. C. Griebelung 205. C. E. Grayling 207. J. R. Gossage 221. J. M. Gibbs 241. J. J. Greene 242. W. H. Green 261. C. A. Ging 279. J. L. Grey 235. K. Grayson 286. C. J. H. Gravener 300, 336, 346. M. G. Grisby 315. C. A. Graves 335. J. M. Grenn 341. P. W. Gibbs 413. J. T. Gray 420.

H.—J. E. Hetherington 14, 377. J. Huestis 14. O. Hulme 15, 52, 161. A. J. Hume 16. J. Huzen 17. J. Heddon 25, 54, 94, 140, 194, 199, 221, 268, 306, 334, 417. S. Humfeld 47, 162. Mrs. W. Hulme 51. J. Harmon 53, 157, 300. H. Hamilton 68, 245. D. E. Haynie 88, 301. J. P. Howard 84. J. F. Hershey 100. H. S. Harrison 100, 101. C. M. Halleb 101. H. G. Hendricks 102, 120. A. H. Hart 120, 206. H. Haines 122, 162, 176, 198, 202, 208, 271, 274, 304, 313, 314, 419. E. Hershey 126. N. H. Holman 126, 301. D. P. Hartford 155. W. P. Hogarty 156. H. S. Heath 160. J. Harper 162. W. W. Hippolite 162, 207. L. Hitchcock 185. W. P. Henderson 197, 230, 234. J. E. Hunter 204. J. W. Howell 205. E. J. Hill 205. A. S. Huskin 206. Mrs. D. M. Hall 208. H. H. Howard 220. J. T. Hobbs 234. J. H. Hodgkins 240, 276. J. M. Hicks 277. H. Herard 279. G. T. Horning 302. J. W. Howell 302. C. Hotchkiss 313, 342. T. G. Harvey 331. C. B. Heston 335. N. T. Horton 336. J. F. Henderson 351. W. M. Hoge 374. J. H. Hasbrouck 333. J. W. Henderson 418.

I.—G. Ilisch 150, 238. I. Ingmundson 161, 204.

J.—R. Jones 15. M. Johnson 53. Justitia 99. Dr. C. M. Joslin 100. G. W. Jenkins 121, 157. ~~John Jones~~

125. J. Joslin 189. J. W. Johnson 300. E. M. Johnson 300. J. A. Johnson 301.

K.—W. H. Kirk 15, 230. W. M. Kellogg 34, 53, 122, 123, 223. A. C. Kermans 92. W. Kitson 126. D. Kepler 120. C. Kellar 123. J. E. Kearns 157. J. J. Kiser 161. R. F. Kedzia 172. W. P. Kellogg 176. J. H. Kelley 189. Keyer & Finn 260. F. Krueger 237, 273. H. G. King 302. E. B. Kendall 312. J. H. Kennedy 410.

L.—B. Lunderer 28, 229. W. W. Lynch 30. Dr. F. Lashier 47. G. J. Longfellow 126. Lover of Italians 130. M. E. Loehr 155. H. W. Lee 160. Cyula Linswik 170. L. M. Land 204. D. P. Lane 205. F. Ludwig 199. L. Lindley 240. J. F. Lynn 241. L. M. Lindley 242, 336. W. O. Langdon 272. S. M. Locke 300, 348, 385. T. D. Leonard 335. C. H. Leitzgens 418. C. A. Luce 21. H. L. Lankton, 422. S. S. Lyday 22.

M.—C. F. Muth 13, 59, 88, 124, 196, 240, 258, 275. M. Mahin 15, 17, 99, 163, 165, 204, 237. P. Miller 15, 30, 90. R. R. Murphy 16, 159, 185, 188, 202, 240, 301, 419. J. W. McNeil 21, 125, 159, 163. F. M. Moody 48. C. Miller 53. W. M. 53. W. K. Marshall 53. J. P. Moore 60, 418. R. Mayerhofer 63. M. 88, 176. J. F. Montgomery 90. G. H. Mackay 100. W. Moorhouse 123. J. Murry 124. J. Martin 125, 204, 275, 309, 343. E. G. Martin 126. A. B. Mason 126, 419. S. K. Marsh 128, 337. J. M. Marvin 130. O. E. Mead 157. T. G. McGaw 161, 208. C. R. Menz, 189. R. Miller 190, 206. T. C. Millett 198. A. J. Mackay 204. J. I. Martin 205. W. McCartney 206. D. S. McCalum 206. R. Montgomery 206. J. McCook 224. S. Marshall 241. W. L. Moore 261. A. F. Moon 262, 316. G. F. Merriam 263, 276. C. McDermott 300. W. H. Meadow 333. T. Moran 335. C. McCracken 335. M. Metcalf 381. J. N. McCollum 413. F. McDonnell 418. T. M. Moore 419. W. Martin 227.

N.—Novice 14, 293, 294. J. H. Nellis 69, 103, 132, 275. N. A. Neighbour 85. D. P. Niven 161, 204. Miss L. J. Noble 204. M. A. Newcomb 301. A Novice 416.

O.—D. H. Ogden 62. J. Oatman & Co. 100, 273, 275. Mrs. M. A. O'Neill 100. One who knows 133. A. Osborn 235. R. B. Old 238, 312. J. W. Osborn 277.

P.—O. P. Poplett 14, 100. E. Pickup 15, 30, 351. D. D. Palmer 17, 51, 63, 87, 134, 409. M. L. P. 28. J. F. Pelham 47, 84. W. T. Parham 52. E. P. 83. J. M. Porter 101. J. E. Pleasants 101. E. C. Phillips 121, 278. W. Porter 123, 227. J. Patterson 162. F. Perry 189, 302. I. F. Plummer 276. N. Perkins 301. Dr. E. Parmy 351, 380. J. P. Parker 422.

Q.—Quiz 189, 315.

R.—J. E. Ritchie 23, 27, 414. W. H. Rafferty 48. J. Rooker 54, 314. W. B. Rush 124, 131, 133, 237, 277, 423. H. W. Roop 125, 276. H. B. Rolfe 129, 157. A. I. Root 156, 222. H. M. Roop 162, 418. L. M. Roberts 189, 206. A. Reader 203. W. Muth-Rasmussen 242. A. J. Richardson 261. J. L. Richardson 302. J. C. Root 402, 420. E. Root 413, 419. A. M. Rhodes 202.

S.—J. M. Stephenson 14. W. Stump 52, 101. A. Salsbury 59, 204, 234. C. Sonne 65. F. Searles 125, 241. C. W. Stokes 126. J. O. Shearman 129. Scott & Bramblett 136. O. P. Storm 158. Anna Saunders 159, 205, 273, 298. I. Sharp 159, 241, 335. A. Simons 162. H. S. See 162. F. Schletzbaum 162. J. L. Smith 206. L. Sutliff 208, 311. J. Stoddard 221, 300. A. W. Smith 230. W. T. Sears 231. Subcriber 222, 278, 315, 422. F. M. Stockton 261. A. J. Simonds 277. G. W. Stanley 301. W. S. Slocum 342. Southard & Ranney 348. J. W. Shearer 373. S. W. Stevens 419. G. C. Soden 420. W. Sedgwick 421.

T.—A. D. Tefft 48. Mrs. E. Truman 51. H. N. Tenant 107. E. J. Thomas 121. J. Tomlinson 123, 192. S. P. T. 123. G. Thompson 127. M. D. T. 158. L. L. Triem 162. H. Templeton 186. J. H. Townley 236. G. H. Teague 329. F. B. Thurber 376.

V.—D. Vido 52. J. V. 83. S. L. Vail 123. G. A. VanHorn 123. C. C. VanDeusen 204. P. L. Viallon 335.

W.—C. Weeks 15. R. Wilkin 16, 52, 156, 190. S. G. Wick 21, 96. E. Wellington 35, 190. A. P. Wyman 48. J. A. Waterhouse 51, 275. G. H. Wright 120. P. Wilde 121. O. W. Walton 121, 128, 133. A. Wright 125. W. F. Williams 141. N. D. West 160. D. Wurth 162. W. H. Ware 187. A. T. Wright 294. J. Winfield 205. H. F. Walton 206. J. H. Washburn 240. G. B. Wallace 240. J. Wemmer 242. A. W. Windhorst 275. H. C. White 336. J. C. Williamson 336. M. Wright 340. W. Williamson 415.

Y.—B. P. Yeomans 240.

Z.—G. W. Zimmerman 275.

VOLUME 31 NUMBER 1

INDEX TO CORRESPONDENTS.

—:0:—

A.—W. J. Andrews 22, 49, 88, 163, 187, 224, 225, 260, 297, 310, 333, 369, 407. H. Alley 51, 64, 87, 119, 201, 238, 266, 271, 304, 305, 308, 349, 415, 421. J. Anderson 51. R. M. Argo 65, 199, 272, 307, 343. N. P. Allen 69, 88, 195, 209, 410. J. L. Anderson 126, 276, 336. H. J. Alvin 160. A. C. Attwood 235. R. Arnold 261. J. Atkins 276. L. C. Axtell 335. R. M. Anderson 335. W. H. Andrews 341. A. Beginner 418. M. Adams 419.

B.—H. Bird 15. R. S. Becktell 30. S. S. Butler 30, 51. H. A. Burch 31, 56, 66, 120, 185, 215, 340. J. M. Bennett 48. M. M. Baldridge 49, 121, 130. Dr. J. P. H. Brown 50, 136. J. W. Bittenbender 51. W. S. Boyd 54. F. Benton 57, 133, 140, 177, 225, 277, 298, 405. T. F. Birmingham 62, 85, 123, 206, 220, 230. W. S. Barclay 91. J. Billings 98. W. Bentz 102. Barker & Dicer 122. R. Bækken 135, 301. O. Brønnefeld 155. O. M. Brown 156. Jos Brown 158, 161. J. Burfoot 155. C. S. B. 161. Mrs. A. Bucker 161. L. C. Bornmann 162. W. Beal 173. A. Benedict 190, 229. Mrs. L. B. Baker 164. Mrs. M. A. Bills 197. P. Bossert 204. D. Bartzis 207. J. J. Brooks 210, 250. J. Best 220. W. G. Bailey 240. L. E. Bush 278. J. D. Biedell 297. O. F. Biedsoe 334. H. L. Brush 351. N. K. Botsinger 382. Dr. Botts 411. E. R. Billings 44. W. B. Burgett 419. A. A. Baldwin 420. E. B. Barker 422. H. B. 422.

C.—W. F. Clark 11, 13, 46. W. Christ 16. A. Chapman 16. A. J. Cook 18, 67, 92, 96, 101, 164, 180, 221, 278, 300, 315, 371. N. Cameron 20, 165, 200. J. V. Caldwell 28, 203. W. H. Conklin 47. R. C. Cameron 47. D. Clifton 51. J. T. Connley 52, 126. C. R. Clough 53, 242. J. M. Camp 53. J. S. Coop 57, 103, 158, 310. P. P. Collier 67, 68, 101, 302, 347. O. Clete 97, 227, 304. M. M. Callen 102. J. H. Christie 121. F. P. Clark 123. R. L. Curry 123. F. W. Chapman 155, 201. S. Cornell 155. Crowfoot Bros. 150. E. Culver 162. W. Cam 162, 211, 314. A. B. Cheney 166, 173, 329. H. Christ 202. O. E. Clark 207. F. Claussen 240. John Crowfoot 276. J. Z. Carr 278. W. E. Connell 301. A. U. Crosby 315. G. W. Church 333. R. A. Calvin 350. O. Courtney 350. E. Cori 406. I. M. Camp 420.

D.—G. M. Doolittle 14, 347, 364, 370, 417, 422. J. L. Davis 14, 63, 64. F. R. Davis 15. M. D. DuBois 16. Dr. Dzierzon 23, 223. C. Dadant 25, 27, 84, 95, 106, 157, 164, 203, 231, 233, 234, 265, 306, 350, 409. P. Dunken 51, 207. J. Dikevey 52. Mrs. J. W. Dick 53. L. J. Diehl 120, 131. J. Davis 134. R. Dart 159. J. W. Dodson 159. S. C. Dodge 176, 335, 376, 408. D. M. D. 242. A. J. Davidson 268. W. Dyer 276, 277. Mrs. J. S. Dunham 301. J. A. Dirlwanger 301. W. J. Davis 302. M. Deunler 314. Mrs. M. Dunbar 334. N. B. DeVot 336. J. B. Dines 422.

E.—J. Emmons 51, 162, 204, 240. J. Edmonds 101. W. P. Evertt 102, 135, 161, 211. P. H. Elwood 160. H. D. Edwards 205, 351. E. S. Edwards 240.

F.—C. Follett 48. R. Forsyth 51. J. B. Ficklen 52. J. Flory 52, 156, 275, 301. B. Franklin 102, 209. C. J. Fox 137, 264. S. S. Fetherolf 335. J. Fox 416.

G.—C. Grimm 19, 418. W. H. Garihan 51. F. M. Gingras 53, 422. J. W. Guthrie 53. C. F. Greening 63, 240, 273, 300. J. G. 83. J. W. Greene 100, 240, 257. G. L. Green 100. A. P. Green 123. LeRoy Gates 125. R. P. G. 158. D. Grabine 162. J. M. Good 189. C. Griebelung 205. C. E. Grayling 207. J. R. Gossage 221. J. M. Gibbs 241. J. J. Greene 242. W. H. Green 261. C. A. Ging 279. J. L. Grey 235. K. Grayson 286. C. J. H. Gravener 300, 336, 346. M. G. Grisby 315. C. A. Graves 335. J. M. Grenn 341. P. W. Gibbs 413. J. T. Gray 420.

H.—J. E. Hetherington 14, 377. J. Huestis 14. O. Hulme 15, 52, 161. A. J. Hume 16. J. Huzen 17. J. Heddon 25, 54, 94, 140, 194, 199, 221, 268, 306, 334, 417. S. Humfeld 47, 162. Mrs. W. Hulme 51. J. Harmon 53, 157, 300. H. Hamilton 68, 245. D. E. Haynie 88, 301. J. P. Howard 84. J. F. Hershey 100. H. S. Harrison 100, 101. C. M. Halleb 101. H. G. Hendricks 102, 120. A. H. Hart 120, 206. H. Haines 122, 162, 176, 198, 202, 208, 271, 274, 304, 313, 314, 419. E. Hershey 126. N. H. Holman 126, 301. D. P. Hartford 155. W. P. Hogarty 156. H. S. Heath 160. J. Harper 162. W. W. Hippolite 162, 207. L. Hitchcock 185. W. P. Henderson 197, 230, 234. J. E. Hunter 204. J. W. Howell 205. E. J. Hill 205. A. S. Huskin 206. Mrs. D. M. Hall 208. H. H. Howard 220. J. T. Hobbs 234. J. H. Hodgkins 240, 276. J. M. Hicks 277. H. Herard 279. G. T. Horning 302. J. W. Howell 302. C. Hotchkiss 313, 342. T. G. Harvey 331. C. B. Heston 335. N. T. Horton 336. J. F. Henderson 351. W. M. Hoge 374. J. H. Hasbrouck 333. J. W. Henderson 418.

I.—G. Ilisch 150, 238. I. Ingmundson 161, 204.

J.—R. Jones 15. M. Johnson 53. Justitia 99. Dr. C. M. Joslin 100. G. W. Jenkins 121, 157. ~~John Jones~~

125. J. Joslin 189. J. W. Johnson 300. E. M. Johnson 300. J. A. Johnson 301.

K.—W. H. Kirk 15, 230. W. M. Kellogg 34, 53, 122, 123, 223. A. C. Kermans 92. W. Kitson 126. D. Kepler 120. C. Kellar 123. J. E. Kearns 157. J. J. Kiser 161. R. F. Kedzia 172. W. P. Kellogg 176. J. H. Kelley 189. Keyer & Finn 260. F. Krueger 237, 273. H. G. King 302. E. B. Kendall 312. J. H. Kennedy 410.

L.—B. Lunderer 28, 229. W. W. Lynch 30. Dr. F. Lashier 47. G. J. Longfellow 126. Lover of Italians 130. M. E. Loehr 155. H. W. Lee 160. Cyula Linswik 170. L. M. Land 204. D. P. Lane 205. F. Ludwig 199. L. Lindley 240. J. F. Lynn 241. L. M. Lindley 242, 336. W. O. Langdon 272. S. M. Locke 300, 348, 385. T. D. Leonard 335. C. H. Leitzgens 418. C. A. Luce 21. H. L. Lankton, 422. S. S. Lyday 22.

M.—C. F. Muth 13, 59, 88, 124, 196, 240, 258, 275. M. Mahin 15, 17, 99, 163, 165, 204, 237. P. Miller 15, 30, 90. R. R. Murphy 16, 159, 185, 188, 202, 240, 301, 419. J. W. McNeil 21, 125, 159, 163. F. M. Moody 48. C. Miller 53. W. M. 53. W. K. Marshall 53. J. P. Moore 60, 418. R. Mayerhoffer 63. M. 88, 176. J. F. Montgomery 90. G. H. Mackay 100. W. Moorhouse 123. J. Murry 124. J. Martin 125, 204, 275, 309, 343. E. G. Martin 126. A. B. Mason 126, 419. S. K. Marsh 128, 337. J. M. Marvin 130. O. E. Mead 157. T. G. McGaw 161, 208. C. R. Menz, 189. R. Miller 190, 206. T. C. Millett 198. A. J. Mackay 204. J. I. Martin 205. W. McCartney 206. D. S. McCalum 206. R. Montgomery 206. J. McCook 224. S. Marshall 241. W. L. Moore 261. A. F. Moon 262, 316. G. F. Merriam 263, 276. C. McDermott 300. W. H. Meadow 333. T. Moran 335. C. McCracken 335. M. Metcalf 381. J. N. McCollum 413. F. McDonnell 418. T. M. Moore 419. W. Martin 227.

N.—Novice 14, 293, 294. J. H. Nellis 69, 103, 132, 275. N. A. Neighbour 85. D. P. Niven 161, 204. Miss L. J. Noble 204. M. A. Newcomb 301. A Novice 416.

O.—D. H. Ogden 62. J. Oatman & Co. 100, 273, 275. Mrs. M. A. O'Neill 100. One who knows 133. A. Osborn 235. R. B. Old 238, 312. J. W. Osborn 277.

P.—O. P. Poplett 14, 100. E. Pickup 15, 30, 351. D. D. Palmer 17, 51, 63, 87, 134, 409. M. L. P. 28. J. F. Pelham 47, 84. W. T. Parham 52. E. P. 83. J. M. Porter 101. J. E. Pleasants 101. E. C. Phillips 121, 278. W. Porter 123, 227. J. Patterson 162. F. Perry 189, 302. I. F. Plummer 276. N. Perkins 301. Dr. E. Parmy 351, 380. J. P. Parker 422.

Q.—Quiz 189, 315.

R.—J. E. Ritchie 23, 27, 414. W. H. Rafferty 48. J. Rooker 54, 314. W. B. Rush 124, 131, 133, 237, 277, 423. H. W. Roop 125, 276. H. B. Rolfe 129, 157. A. I. Root 156, 222. H. M. Roop 162, 418. L. M. Roberts 189, 206. A. Reader 203. W. Muth-Rasmussen 242. A. J. Richardson 261. J. L. Richardson 302. J. C. Root 402, 420. E. Root 413, 419. A. M. Rhodes 220.

S.—J. M. Stephenson 14. W. Stump 52, 101. A. Salsbury 59, 204, 234. C. Sonne 65. F. Searles 125, 241. C. W. Stokes 126. J. O. Shearman 129. Scott & Bramblett 136. O. P. Storm 158. Anna Saunders 159, 205, 273, 298. I. Sharp 159, 241, 335. A. Simons 162. H. S. See 162. F. Schletzbaum 162. J. L. Smith 206. L. Sutliff 208, 311. J. Stoddard 221, 300. A. W. Smith 230. W. T. Sears 231. Subcriber 222, 278, 315, 422. F. M. Stockton 261. A. J. Simonds 277. G. W. Stanley 301. W. S. Slocum 342. Southard & Ranney 348. J. W. Shearer 373. S. W. Stevens 419. G. C. Soden 420. W. Sedgwick 421.

T.—A. D. Tefft 48. Mrs. E. Truman 51. H. N. Tenant 107. E. J. Thomas 121. J. Tomlinson 123, 192. S. P. T. 123. G. Thompson 127. M. D. T. 158. L. L. Triem 162. H. Templeton 186. J. H. Townley 236. G. H. Teague 329. F. B. Thurber 376.

V.—D. Vido 52. J. V. 83. S. L. Vail 123. G. A. VanHorn 123. C. C. VanDeusen 204. P. L. Viallon 335.

W.—C. Weeks 15. R. Wilkin 16, 52, 156, 190. S. G. Wick 21, 96. E. Wellington 35, 190. A. P. Wyman 48. J. A. Waterhouse 51, 275. G. H. Wright 120. P. Wilde 121. O. W. Walton 121, 128, 133. A. Wright 125. W. F. Williams 141. N. D. West 160. D. Wurth 162. W. H. Ware 187. A. T. Wright 294. J. Winfield 205. H. F. Walton 206. J. H. Washburn 240. G. B. Wallace 240. J. Wemmer 242. A. W. Windhorst 275. H. C. White 336. J. C. Williamson 336. M. Wright 340. W. Williamson 415.

Y.—B. P. Yeomans 240.

Z.—G. W. Zimmerman 275.

VOLUME 31 NUMBER 1

INDEX TO VOLUME XIII.

—:—

CORRESPONDENCE:

About Honey	64	Imported Queens and Breeders	340	Various Matters	55
A Cheap Bee House	343	Improvement of Italian bees	127, 190	Ventilation	87
A few more Straws	232, 268, 337	Inaugural Address	168	Visit to a Canadian Bee-keeper	26
Agricultural College Apairy	18	Introducing Queens	25, 37, 163	Visit to an Illinois Bee-keeper	313
Agricultural Progress	61	235, 239, 300	385	Visit to a Neighbor's Apairy	28
Am. Institute and the National	163	Italian Bees	130, 190, 271	Weather Report in Louisiana	131
A Microscopical Question	88	Joint in the Leg of a Bee	176	Which Frames to Adopt	227
An Easy cure of Foul Brood	92	Larvae of Queens and Purity of	304	Whitman's Fountain Pump	309
A New Hiving Apparatus	238	Drones	304	Wintering Bees	165, 202, 234, 300
An Injustice	133	Letter from California	263	Wintering Nucleus Colonies	202
A Novel Experiment	414	Letter from Kansas	20	Wintering on Honey Dew	342
Answer to J. C. Newman	63	Life Insurance	134	Wintering on Summer Stands	236
Answer to Mr. Dadant	274, 343	Longevity of Honey Bees	272	Winter Transferring	128
Apilarian or Apistarist?	165	Lying out of Bees	65		
A Prolific Queen	312				
A Woman's Experience	194				
Bee-Culture and Stings	307	Management of the Apairy	383		
Bee-Culture in the South	56	Marketing Honey	371, 416	Editor's Table:	
Bee Hives	133, 348	Merits of Italians and Blacks	227	Additions to our Museum	13, 120
Bee Hunt in Florida	413	Michigan Association	199	188, 221, 257, 260	401
Bee-Keeping as a Pursuit	63	Michigan State Fair	340	American Institute Fair	365
Bee Lice	96	Mistakes of Bee-Keepers	92	A New Discovery	187
Bee Notes from Iowa	34	Mode of Preparing for Winter	131	Barnes Foot-Power Saw	156
Bee Notes from Kentucky	30, 307	My Annual Report	66	Bee Stings	402
Bee Smoker. H. Nesbit	193	My Bees	28, 229	Beeswax—A Staple Article	330
Bees and Red Clover	314	My Queen Cage	311	Bee Items from Louisiana	46
Bees and Agricultural College	67	My Report and Management	350	Bibulous Bees	402
Bees of the same Colony fighting	99, 129, 200	National Bee-Keepers	90, 91	Bull's <i>Ne Plus Ultra</i> Hive	84
Benefits of Bees and Plants	173	Neatness in Bee-Keeping	34	California Honey	219
Billings, on the Honey Bee	98	Nil Desperandum	409	Chinese Mustard a Honey Plant	188
Bingham Hives	128	Northern Minn. Aparies	16	Clean out the Hives	188
Bingham Smoker	221, 233	Notes by the Way	339	Comb Foundation Machines	365
Black vs. Italian Bees	90, 129, 235, 272	Notes from Louisiana	237	Comb Honey Carriers	330
Blasted Hopes	141	Notes from Tennessee	90	Deserved Tribute	364
Box vs. Frame Hives	65	Odds and Ends	266	Editorial Items	13, 46, 49, 50, 83, 86,
Building Straight Combs	231	On Novice	403	119, 122, 155, 158, 185, 188, 219, 221,	
California Honey Crop	266	Open Letter to Prof. Cook	417	257, 260, 283, 294, 329, 332, 363, 386,	
California Honey Interests	268	Organization and sale of Honey	378	401	404
Care of Bees in Winter	412	Our Honey Season	309	Eggs laid in Queen Cells	220
Centennial Award—Extractors	201	Our Interests	26	Farm Prosperity	331
Changing Larvae in queen cells	337	Our Michigan Convention	54	Future of the National Society	13
Changing Queens	16	Our National Society	22	Harvest Musings	331
Cheap Queens	230	Over-Stocking	203	Hints to Beginners	118, 262
Chickens Eating Bees	190	Pasturage	19	Honey-Producers' Interests	45
Chips from Sweet Home	17, 133, 409	Patents	385	Honey Product of Southern Cal	260
City Bee-Keeping (Illustrated)	59	Plan for Getting comb honey	349	House Aparies	222
Coe's House Apairy	57	Pleasure of Bee-Keeping	411	How to go to the Convention	332
Comb Foundations	29, 30, 63, 130, 303, 304, 309, 377	Points for Reporters	97	Is it Pure?	219
Comb Guides	63, 133	Portable Shade Covers	228	Mad Dogs	119
Constitution of National Society	91	Preparing Brood for Winter	382	Moon's <i>Bee World</i>	317
Corn Blossoms and Honey	163	President Andrews' Address	369	Muth's Extractor	258, 265
Cyprian and Carniolian Bees	27	President Bacon's Address	135	My Plan for Registering	259
Cyprian Bees	312	Prevention of After-Swarming	64	New York Honey House	260
Desirable Combs—How Secured	194	Prevention of Increase	370	October Management	332
Discussion in Germany	23	Price of Queens and Colonies	164, 202	Prizes for Essays	402
Does Bee-Culture pay?	88	Progress in Bee-Culture	60	Quinby's Clamps	121
Dollar Queens	197, 231, 263, 305	Queens laying in queen cells	267, 273	Railroad Strike and Riot	258
Dollar Queens vs. Imported	308	Querries	23	Rates of Postage	210
Doodtite's Report	416	Read This	304	Registering Slates	219, 259
Dysentery	133	Rearing Italian Queens	305, 214, 381	Removal of Office	331, 403
Explanation from Benedict	238	Recipe for Bite of Mad Dogs	190	Royal Bee Funeral	294
Facts for the Public	379	Renewing Combs	268	Seasonable Hints	294
Falsification of Honey	350	Report from G. M. Doolittle	347	Sectarian Honey Boxes	122
Feeding Bees, and Feeders	349	Scraps from Illinois	223	Sending Bees by Mail	186, 187
Foreign Races of Bees	380	Sending Bees by Mail	238, 308	Separating Honey from Wax	260
Foul Brood	196	Shall Farmers Keep Bees?	172	Something New	186
Future of the National Society	90	Shipping Bees	413	Stevenson's Extractor	187
Hardin Haines Ventilated	223	Slate Registers	268, 303	Surplus Frames	236
Hives in Rows	65	Strange Things in Bee-dom	312	Sweet Clover	368
Honesty the best Policy	95	Surplus Honey	28, 58, 63	Tennant's Honey Box	107
Honey a Luxury	140	The Barnes Foot-Power Saw	203	The Festive 'Hopper	186
Honey and Pollen Resources	128	The Bee's Physiology	177	The Finn Hive	260
Honey as an Article of Food	191	The Candyng of Honey	54	The First Curved Honey Knife	188
Honey Dealers	374	The Composition of Honey	172	The Honey Market	295
Honey-Dew	273	The Express Companies	409	The Kalamazoo Convention	66
Honey in Frames	17	The Honey Market	376	The Michigan B. K. Association	65
Honey Market, Crop & Prices	303	That Queen Bee	201	The National Convention	310
How I winter my Bees	54	The Purity of the Italian Bee	136	The Season of 1876-7	45
How may we Improve Bees?	239	Thoughts on Bee-Keeping	413	The War in Europe	188
How to Destroy Moth-Millers	30	Two Queens in same Hive	267, 271	Thurber Gold Medal	186
How to Double-up Hives	21	Un-scientific Bee Culture	30	To our Southern Subscribers	186
How to Fasten Foundation	202			Tremontani Queens	331
How to Italianize Blacks, &c	134			What shall the Harvest be?	259
How to Prevent Increase	234			What Shall we do with Honey?	200
I Can	341			White's Extractor	188, 219
Important Points in Bee Hives	17			Wisdom of the Past	11
Imported Queens	415			Write Plainly	316

374218

FOREIGN NOTES:

A Centenarian in Alsace	298
An Interesting Letter from Germany	311
Apiculture at the Paris Exposition	299
Apis Dorsata (the large Bee) of Java	406
Arabis Alpina (a new Honey Plant)	405
Bee Convention in Bohemia, Austria	298
Bee-Culture in Northern Russia	298
Brazilian Honey Plant—An Evergreen	299
Chilled Bees—How saved from Death	405
Cure for Foul Brood—Salicylic Acid	299
Distribution of the Honey Bee	277
Does taking Honey Injure Plants?	225
Dzierzon Queens and Cyprian Bees	347
Forming New Colonies in France	177
Foul Brood—Its Cause	277
From "Nostra Bella Italia"	277
General Points for Beginners	177
Honey-Thief Moth in Germany	405
How to clear Dead Bees from the Combs	177
How to Counteract Production of Drones	226
How to Prove the Adulteration of Honey	225
Increasing Colonies in Hanover	226
Introduction of Foreign Races of Bees	299
Salicylic Acid as a Cure for Foul Brood	140
Scientific Farmers and Bee-Keepers	277
The American Bee Journal in Europe	277
The Cyprian Bee (C. J. H. Gravenhorst)	299
The Cyprian Bee in Germany	225
The different Races of Bees	140
The Honey Harvest in Alsace	405
The Honey Season in Europe	298
The Importation of Javanese Bees	277
The late Adam Grimm's Theory	299
The Simplest Remedy for Stings	225
The Tulip Tree in Germany	299
The use of Robber Bees	226
Wintering in Pits and Cellars in Bohemia, 406	

GLEANINGS FROM EXCHANGES:

Abbott's School of Apiculture in England	11
How to Prepare Colonies with Chaff	14
The Centennial Honey Show	14
White Comb Foundation—How to Get it?	14

NOTES AND QUERIES:

A Cure for Bee Dysentery	84
Alsi Clover as Forage for Bees	189
A Young Queen Leaving the Hive	48
Bees of the same Colony Fighting	47
Buckwheat for a Late Crop of Honey	279
Centennial Award on Honey Extractors	158
Cockroaches Investing Hives	121
Comb Foundation—Is it Thinned by Bees	278
Extracting Uncapped Honey	189
Fall Pasturage for Bees in Illinois	48
Foul Brood and its Cure	48
Good Cure for Bee Stings	189
Honey Boxes vs. Sectional Frames	157
Honey Plants	83, 315, 351, 422, 423
How to Italianize Hybrid Bees	279
How to Prevent After-Swarming	189
How to Prevent Honey Souring	157, 422
How to Prevent "In-and-in Breeding"	157
How to Secure Straight Combs	47
How to Transfer Bees from Box Hives	158
Introducing Italian Queens	83
Is Maple-Sugar Water good for Bees?	157
Is the American Hive still Patented?	421
Keep Colonies Strong in Order to Succeed	315
Langstroth Hive (none better)	47
Langstroth Hives—their correct measure	157
Meillot Clover as a Honey Plant	279
Meillot Clover—Its Description	121
Mignonette as a Bee Pasture	220

Patent Hive Vendors and Robbers	48
Proper Width apart for Combs	47

Queenless Colony—How to Remedy it	158
Quinby Hive—Foul Brood—Moths	278

Reasons for Loss in Wintering Bees?	157
Renewing Combs in the Brood Chamber	315
Rust on Extractors—How Avoided	278

Small Comb Foundation Machines	220
Sugar for Feeding in the Spring	121

The Best cure for Foul Brood	189, 315
The Best Plant—Cheapest Pasture	279

The best way to Preserve empty Combs	189, 315
The Doolittle Honey Box and Crate	421

The JOURNAL duly Appreciated	47
------------------------------------	----

The Quinby Clamp for Hives	121
----------------------------------	-----

The Quinby Smoker—King's make	158
-------------------------------------	-----

Tulip and Basswood—How Cultivated	278
---	-----

Upward Ventilation—Is it Necessary?	189
---	-----

Van Deusen's Feeder—a Description	221
---	-----

Why do Bees go West when Swarming?	121
--	-----

Why do Bees sometimes Refuse to Swarm	278
---	-----

Why Queens put Several Eggs in one Cell	315
---	-----

Willows and Maples as Honey Plants	189
--	-----

Wintering on the Cellar Bottom	48
--------------------------------------	----

OUR LETTER BOX:

Sundry Letters, 11, 51, 100, 123, 150, 204, 240, 275, 300, 335, 418	
---	--

PROCEEDINGS OF CONVENTIONS:

California Association	137, 242, 264
------------------------------	---------------

Central Kentucky Association	415
------------------------------------	-----

Jefferson County, Indiana, Association	230
--	-----

Maury County, Tennessee, Association	88
--	----

Michigan Association	31, 136
----------------------------	---------

National Association	369
----------------------------	-----

New York City Association	341
---------------------------------	-----

North Eastern Association	103, 122
---------------------------------	----------

Northern Missouri Association	67, 344
-------------------------------------	---------

Southern Kentucky Association	410
-------------------------------------	-----

Western Illinois Association	176, 196
------------------------------------	----------

SOUTHERN NOTES:

A New Use for Honey in Making Wine	334
--	-----

Bee-Culture in the Southern States	333
--	-----

Bee Items gleaned on our Trip	407
-------------------------------------	-----

Bees in Northern Georgia	262
--------------------------------	-----

Best Hive for all Purposes	333
----------------------------------	-----

Comb Honey—Building a Honey House	298
---	-----

Covering for Frames	225
---------------------------	-----

Drones with Heads red as a Cherry	333
---	-----

Explanatory—Our Southern Department	224
---	-----

Honey-Dew in the Southern States	224
--	-----

How to Raise Queens	261
---------------------------	-----

Look-Out Apiary—Comb Foundation	407
---------------------------------------	-----

Mr. A. F. Moon's Apiary in Georgia	333
--	-----

N. N. H. (Novice—National—Heddon)	333
---	-----

One Hundred Hives in a Cyclone	261
--------------------------------------	-----

Our Honey—not from the White Clover	225
---	-----

Our Visiting Jaunt to Louisiana	297
---------------------------------------	-----

Price of Bees in Tennessee	333
----------------------------------	-----

Purely Mated Queens	333
---------------------------	-----

Queen Destroying Workers	261
--------------------------------	-----

Sending Bees by Mail	224
----------------------------	-----

The Honey Season	261
------------------------	-----

The Hive I Prefer—the Langstroth	261
--	-----

To our Friends about Mailing Bees	261
---	-----

Wayside Pencillings en route to New York	407
--	-----

Weight of a Colony of Bees in June	297
--	-----

Will it Pay to raise Dollar Queens?	334
---	-----

